User's Guide

Mobile Phone
R250d PRO

ERICSSON

Mobile Phone

R250d PRO

Dual band, tri mode
for TDMA Systems

User's Guide

ERICSSON ⧦

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6/00 PBM

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Table of Contents

Guidelines for Safe and Efficient Use

Your terminal is a radio transmitter and receiver. When the terminal is turned on, it receives and transmits radio frequency (RF) energy. Depending on the type of terminal you have bought, it operates in different frequency ranges and employs commonly used modulation techniques. The system that handles your call when you are using your terminal controls the power level at which your terminal transmits.

Safety

Exposure to Radio Frequency Signals

Your wireless handheld portable telephone is a low power radio transmitter and receiver. When it is ON, it receives and also sends out radio frequency (RF) signals.

In August, 1996, the Federal Communications Commission (FCC) adopted RF exposure guidelines with safety levels for handheld wireless phones. Those guidelines are consistent with the safety standards previously set by both US and international standards bodies:

- ANSI C95.1 (1992)*
- NCRP Report 86 (1986)*
- ICNIRP (1996)*

Those standards were based on comprehensive and periodic evaluations of the relevant scientific literature. For example, over 120 scientists, engineers, and physicians from universities, government health agencies, and industry reviewed the available body of research to develop the ANSI Standard (C95.1).

The design of your phone complies with the FCC guidelines (and those standards).

American National Standards Institute: National Council on Radiation Protection and Measurements; International Commission on Non-Ionizing Radiation Protection.

Antenna Care

Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the phone and may violate FCC regulations.

Accessories

Use only the supplied belt clip or approved Ericsson accessory. Use of unauthorized accessories may violate FCC regulations and should be avoided.

Phone Operation

NORMAL POSITION: Hold the phone as you would any other telephone with the antenna pointed up and over your shoulder.

TIPS ON EFFICIENT OPERATION: For your phone to operate most efficiently:

- Extend your antenna fully (where applicable).
- Do not touch the antenna unnecessarily when the phone is in use. Contact with the antenna affects call quality and may cause the phone to operate at a higher power level than otherwise needed.

Driving

Check the laws and regulations on the use of wireless telephones in the areas where you drive. Always obey them. Also, if using your phone while driving, please:

- Give full attention to driving – driving safely is your first responsibility.
- Use handsfree operation, if available.
- Pull off the road and park before making or answering a call if driving conditions so require.

In addition, Ericsson suggests the following safe driving tips if you are using your phone while driving:

- Get to know your wireless phone and its features such as speed dial and redial.

- Position your wireless phone within easy reach.
- Suspend conversations during hazardous driving conditions or situations.
- Do not take notes or look up phone numbers while driving.
- Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic.
- Do not engage in stressful or emotional conversations that may be distracting.
- Use your wireless phone to call for help.
- Use your wireless phone to help others in emergencies.
- Call roadside assistance or a special wireless non-emergency assistance number when necessary.

Electronic Devices

Most modern electronic equipment is shielded from RF signals. However, certain electronic equipment may not be shielded against RF signals from your wireless phone.

Pacemakers

The Health Industry Manufacturers Association recommends that a minimum separation of six (6") inches be maintained between a handheld wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the

independent research by and recommendations of Wireless Technology Research.

Persons with pacemakers:

- Should ALWAYS keep the phone more than six inches from their pacemaker when the phone is turned ON.
- Should not carry the phone in a breast pocket.
- Should use the ear opposite the pacemaker to minimize the potential for interference.
- If you have any reason to suspect that interference is taking place, turn your phone OFF immediately.

Hearing Aids
Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult your service provider (or call the customer service line to discuss alternatives).

Other Medical Devices
If you use any other personal medical device, consult the manufacturer of your device to determine if it is adequately shielded from external RF energy. Your physician may be able to assist you in obtaining this information.

Turn your phone OFF in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

Vehicles
RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle. You should also consult the manufacturer of any equipment that has been added to your vehicle.

Posted Facilities
Turn your phone OFF in any facility where posted notices so require.

Aircraft

FCC regulations prohibit using your phone while in the air. Switch OFF your phone before boarding an aircraft.

Blasting Areas

To avoid interfering with blasting operations, turn your phone OFF when in a "blasting area" or in areas posted: "Turn off two-way radio." Obey all signs and instructions.

Potentially Explosive Atmospheres

Turn your phone OFF when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Areas with a potentially explosive atmosphere are often but not always clearly marked. They include fueling areas such as gasoline stations; below deck on boats; fuel

or chemical transfer or storage facilities; vehicles using liquefied petroleum gas (such as propane or butane); areas where the air contains chemicals or particles, such as grain, dust, or metal powders; and any other area where you would normally be advised to turn off your vehicle engine.

For Vehicles Equipped with an Air Bag

An air bag inflates with great force. DO NOT place objects, including both installed or portable wireless equipment, in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed and the air bag inflates, serious bodily injury could result.

Product Care and Operation

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: 1) This device may not cause harmful interference, and 2) This device must accept any interference received, including interference that may cause undesired operation.

Please observe Ericsson's suggestions for safe and efficient product operation. Although the terminal is resistant to rain and running water, do not unnecessarily subject it to water. If you need to wash your terminal, it is recommended that you do it gently in cold water under a water tap. Make sure that your battery is properly connected, the antenna is properly screwed on and

that all accessories are removed before you wash your terminal.

- Ericsson cannot guarantee that the terminal is water resistant if the antenna is not properly connected.
- Do not use any detergent or washing powder.
- Do not immerse the product in water.
- Do not expose your product to liquids other than water.
- Do not expose your product to extreme temperatures.
- Only Ericsson original accessories are recommended. Failure to use them may result in loss of performance or product damage, and will void the warranty.
- Do not attempt to disassemble the product. Doing so will void the warranty. This product does not contain consumer serviceable components. Service should be performed by Authorized Service Center only.
- The terminal will not withstand dust, moisture or rain if the battery and/or the antenna are not properly connected.
- Removal of the battery and antennas should be done under clean and dry conditions. Make sure that no moisture gets into the terminal.
- Do not allow children to play with your phone. They could hurt themselves or others, or could accidentally damage the phone. Your phone may con-

tain small parts that could be detached and create a choking hazard.

- Do not allow objects to fall on, or liquids to spill on the products.
- Hold the phone as you would any other telephone, while in Phone Mode. While speaking directly into the mouthpiece, angle the antenna in a direction up and over your shoulder. If the antenna is extendable/retractable, it should be extended during a call.

> ⌛ ⚠ **WARNING**
>
> HEARING DAMAGE may occur if the phone is placed closer than 3 inches (7.62 cm) to your ear while it is in Radio Mode. Do not hold the phone less than 3 inches (7.62 cm) to your ear when using Radio Mode.

- Do not transport or store flammable gas, liquid, or explosives in the compartment of your vehicle that contains your terminal and accessories.
- Place the phone in a secure location when in a vehicle to prevent interference with vehicle operation and reduce the likelihood of injury in the case of a vehicle accident.
- For safe use, keep the phone a minimum of two inches (5cm) from your face while in radio or speakerphone mode.

Water Resistant

You can do the following:

- Rinse the phone under a water faucet if it is dirty.
- Use the phone outdoors, even if it is raining.
- Use the phone in damp working environments.

You should not do the following:

- Submerge the phone in water.
- Go swimming or diving with the phone.
- Use anything else than water to clean the phone.

Washing the Phone

If your phone is dirty, you can wash it in cold water under a faucet. Dry the phone before you use it again. The phone is not water resistant when the battery or antenna is removed. Always make certain that the phone is dry before removing these parts. You should also make sure that the battery and its gasket are clean before you attach the battery.

Unclear Voice or Buzzer

The microphone and buzzer are placed at the end of two separate sound channels. If water or dirt block these channels, your voice may sound unclear to the person you are talking to and the sound of the buzzer may be hard to hear. When you are washing the phone, you should avoid rinsing water directly into the sound channels. If you need to clear the sound channels, hold the phone and tap or shake it a few times.

Salt water

If salt water is splashed on the phone, you should rinse it under a water faucet to avoid salt crystals from stopping up the protective membranes.

Antenna Care

- Do not continue to twist the antenna after it has been inserted. Excess twisting will damage the antenna.

- Be cautious if removing your antenna. A detached antenna may be a choking hazard for children.

- Handle a detached antenna with care since it has a sharp metallic end that could scratch, cut, or puncture your skin or eyes.

- Do not bend the antenna since it is sensitive and this will reduce its performance.

- Do not use the terminal with a damaged antenna. Take your terminal to a qualified service center for repair.

- Do not use an antenna designed for any other type of telephone than the one you have bought. Unauthorized antennas, modifications, or attachments could damage the terminal and may violate the appropriate regulations and will void the warranty.

- **Do not** hold the antenna when the phone is in use. Holding the antenna affects call quality, may cause the phone to operate at a higher power level than needed and shortens talk and standby times.

Power Supply

- Connect AC (Power supply) only to designated power sources as marked on the product.

- Make sure the AC (Power supply) is dry and clean before you plug it in.

- To reduce the risk of damage to the electric cord, remove it from the outlet by holding onto the AC adapter rather than the cord.

- Make sure the cord is located so that it will not be stepped on, tripped over or otherwise subjected to damage or stress.

- To reduce the risk of electric shock, unplug the unit from any power source before attempting any cleaning, then use a soft, damp cloth.

- DANGER – Never alter the AC cord or plug. If the plug will not fit into the outlet, have a proper outlet installed by a qualified electrician. Improper connection can result in risk of electric shock.

Battery Information

New Batteries

The battery packaged with your phone is not fully charged. For maximum battery capacity, use your charger to condition the battery.

Recycling Your Battery

Your phone manufacturer is a member of the Recharge-able Battery Recycling Corporation (RBRC), a non-profit service organization designed to assist in the recy-cling of rechargeable batteries. Many areas require the recycling of rechargeable batteries. In the U.S., call 1-800-822-8837 to find out how to recycle your battery. Outside the U.S., contact your local retailer for recycling instructions.

Battery Use and Care

A rechargeable battery has a long service life if treated properly. A new battery, or one that has not been used for a long period of time, should be conditioned before using your phone. Avoid recharging a fully-charged or almost fully-charged battery. This can result in the mem-ory effect, which causes the battery to charge to less than its full capacity. If your phone shuts off due to low bat-tery power, you should charge the battery within 24 hours for the battery to reach full capacity.

- Do not leave your battery where it may be sub-jected to extremely hot or cold temperatures. This could reduce the battery's capacity.
- Do not let the metal contacts on the battery touch another metal object such as keys in your pocket. This could short-circuit and damage the battery.
- Do not attempt to take a battery apart.
- Do not expose a battery to open flame. This could cause the battery to explode.
- Turn your phone OFF before removing the battery.

- Use only the AC/DC adapter supplied with your battery charger. Using a different adapter could be dangerous and will void your phone warranty.
- Never charge a battery when the ambient room temperature is below 50° F (10°C) or above 105°F (40°C).
- Do not allow the battery to be placed into the mouth. Battery electrolytes may be toxic if swal-lowed.
- The terminal is water-resistant when the battery is removed.
- Do not use the terminal with a damaged battery. Use only the designated Ericsson battery.
- Do not use a battery designed for any other type of telephone other than the one you have bought. Unauthorized batteries could damage the terminal and may violate the appropriate regulations and will void the warranty and Ericsson cannot guarantee the terminal being water resistant.

Conditioning Your Battery

To condition your battery, do the following:

1   Charge the battery until it is fully charged.
2   Disconnect the charger and leave your phone ON until the battery is completely discharged.

A beep will sound warning you that your battery is almost discharged. Wait until your phone turns OFF. Your battery is now completely discharged.

Note! The time required to discharge a battery varies based on the type of battery and the number and duration of your calls.

3 Completely discharge the battery and fully charge it, three times in succession to, complete the battery conditioning procedure.

FDA Consumer Update

FDA has been receiving inquiries about the safety of mobile phones, including cellular phones and PCS phones.

The following summarizes what is known – and what remains unknown – about whether these products can pose a hazard to health, and what can be done to minimize any potential risk. This information may be used to respond to questions.

Why the concern?

Mobile phones emit low levels of radiofrequency energy (i.e., radiofrequency radiation) in the microwave range while being used. They also emit very low levels of radiofrequency energy (RF), considered non-significant, when in the stand-by mode. It is well known that high levels of RF can produce biological damage through heating effects (this is how your microwave oven is able to cook food). However, it is not known whether, to what extent, or through what mechanism, lower levels of RF might cause adverse health effects as well. Although

some research has been done to address these questions, no clear picture of the biological effects of this type of radiation has emerged to date. Thus, the available science does not allow us to conclude that mobile phones are absolutely safe, or that they are unsafe. However, the available scientific evidence does not demonstrate any adverse health effects associated with the use of mobile phones.

What kinds of phones are in question?

Questions have been raised about hand-held mobile phones, the kind that have a built-in antenna that is positioned close to the user's head during normal telephone conversation. These types of mobile phones are of concern because of the short distance between the phone's antenna – the primary source of the RF – and the person's head. The exposure to RF from mobile phones in which the antenna is located at greater distances from the user (on the outside of a car, for example) is drastically lower than that from hand-held phones, because a person's RF exposure decreases rapidly with distance from the source. The safety of so-called "cordless phones," which have a base unit connected to the telephone wiring in a house and which operate at far lower power levels and frequencies, has not been questioned.

How much evidence is there that hand-held mobile phones might be harmful?

Briefly, there is not enough evidence to know for sure, either way; however, research efforts are on-going. The

Guidelines for Safe and Efficient Use

existing scientific evidence is conflicting and many of the studies that have been done to date have suffered from flaws in their research methods. Animal experiments investigating the effects of RF exposures characteristic of mobile phones have yielded conflicting results. A few animal studies, however, have suggested that low levels of RF could accelerate the development of cancer in laboratory animals. In one study, mice genetically altered to be predisposed to developing one type of cancer developed more than twice as many such cancers when they were exposed to RF energy compared to controls. There is much uncertainty among scientists about whether results obtained from animal studies apply to the use of mobile phones. First, it is uncertain how to apply the results obtained in rats and mice to humans. Second, many of the studies that showed increased tumor development used animals that had already been treated with cancer-causing chemicals, and other studies exposed the animals to the RF virtually continuously – up to 22 hours per day.

For the past five years in the United States, the mobile phone industry has supported research into the safety of mobile phones. This research has resulted in two findings in particular that merit additional study:

1   In a hospital-based, case-control study, researchers looked for an association between mobile phone use and either glioma (a type of brain cancer) or acoustic neuroma (a benign tumor of the nerve sheath). No statistically significant association was found between mobile phone use and acoustic neuroma. There was also no association between mobile

phone use and gliomas when all types of types of gliomas were considered together. It should be noted that the average length of mobile phone exposure in this study was less than three years.

When 20 types of glioma were considered separately, however, an association was found between mobile phone use and one rare type of glioma, neuroepithelliomatous tumors. It is possible with multiple comparisons of the same sample that this association occurred by chance. Moreover, the risk did not increase with how often the mobile phone was used, or the length of the calls. In fact, the risk actually *decreased* with cumulative hours of mobile phone use. Most cancer causing agents increase risk with increased exposure. An ongoing study of brain cancers by the National Cancer Institute is expected to bear on the accuracy and repeatability of these results.[1]

2   Researchers conducted a large battery of laboratory tests to assess the effects of exposure to mobile phone RF on genetic material. These included tests for several kinds of abnormalities, including mutations, chromosomal aberrations, DNA strand breaks, and structural changes in the genetic material of blood cells called lymphocytes. None of the tests showed any effect of the RF except for the micronucleus assay, which detects structural effects on the genetic material. The cells in this assay showed changes after exposure to simulated cell phone radiation, but only after 24 hours of exposure. It is possible that exposing the test cells to radi-

ation for this long resulted in heating. Since this assay is known to be sensitive to heating, heat alone could have caused the abnormalities to occur. The data already in the literature on the response of the micronucleus assay to RF are conflicting. Thus, follow-up research is necessary.[2]

FDA is currently working with government, industry, and academic groups to ensure the proper follow-up to these industry-funded research findings. Collaboration with the Cellular Telecommunications Industry Association (CTIA) in particular is expected to lead to FDA providing research recommendations and scientific oversight of new CTIA-funded research based on such recommendations.

Two other studies of interest have been reported recently in the literature:

1   Two groups of 18 people were exposed to simulated mobile phone signals under laboratory conditions while they performed cognitive function tests. There were no changes in the subjects' ability to recall words, numbers, or pictures, or in their spatial memory, but they were able to make choices more quickly in one visual test when they were exposed to simulated mobile phone signals. This was the only change noted among more than 20 variables compared.[3]

2   In a study of 209 brain tumor cases and 425 matched controls, there was no increased risk of brain tumors associated with mobile phone use. When tumors did exist in certain locations, however, they were more likely to be on the side of the head where the mobile phone was used. Because this occurred in only a small number of cases, the increased likelihood was too small to be statistically significant.[4]

In summary, we do not have enough information at this point to assure the public that there are, or are not, any low incident health problems associated with use of mobile phones. FDA continues to work with all parties, including other federal agencies and industry, to assure that research is undertaken to provide the necessary answers to the outstanding questions about the safety of mobile phones.

What is known about cases of human cancer that have been reported in users of hand-held mobile phones?

Some people who have used mobile phones have been diagnosed with brain cancer. But it is important to understand that this type of cancer also occurs among people who have not used mobile phones. In fact, brain cancer occurs in the U.S. population at a rate of about 6 new cases per 100,000 people each year. At that rate, assuming 80 million users of mobile phones (a number increasing at a rate of about 1 million per month), about 4800 cases of brain cancer would be expected each year among those 80 million people, whether or not they used their phones. Thus it is not possible to tell whether any individual's cancer arose because of the phone, or whether it would have happened anyway. A key question is whether the risk of getting a particular form of cancer is greater among people who use mobile phones than

Guidelines for Safe and Efficient Use

among the rest of the population. One way to answer that question is to compare the usage of mobile phones among people with brain cancer with the use of mobile phones among appropriately matched people without brain cancer. This is called a case-control study.

The current case-control study of brain cancers by the National Cancer Institute, as well as the follow-up research to be sponsored by industry, will begin to generate this type of information.

What is FDA's role concerning the safety of mobile phones?

Under the law, FDA does not review the safety of radiation-emitting consumer products such as mobile phones before marketing, as it does with new drugs or medical devices. However, the agency has authority to take action if mobile phones are shown to emit radiation at a level that is hazardous to the user. In such a case, FDA could require the manufacturers of mobile phones to notify users of the health hazard and to repair, replace or recall the phones so that the hazard no longer exists.

Although the existing scientific data do not justify FDA regulatory actions at this time, FDA has urged the mobile phone industry to take a number of steps to assure public safety. The agency has recommended that the industry:

- support needed research into possible biological effects of RF of the type emitted by mobile phones;

- design mobile phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and

- cooperate in providing mobile phone users with the best possible information on what is known about possible effects of mobile phone use on human health.

At the same time, FDA belongs to an interagency working group of the federal agencies that have responsibility for different aspects of mobile phone safety to ensure a coordinated effort at the federal level. These agencies are:

- National Institute for Occupational Safety and Health

- Environmental Protection Agency

- Federal Communications Commission

- Occupational Health and Safety Administration

- National Telecommunications and Information Administration

The National Institutes of Health also participates in this group.

In the absence of conclusive information about any possible risk, what can concerned individuals do?

If there is a risk from these products – and at this point we do not know that there is – it is probably very small. But if people are concerned about avoiding even potential risks, there are simple steps they can take to do so. For example, time is a key factor in how much exposure a person receives. Those persons who spend long periods

of time on their hand-held mobile phones could consider holding lengthy conversations on conventional phones and reserving the hand-held models for shorter conversations or for situations when other types of phones are not available.

People who must conduct extended conversations in their cars every day could switch to a type of mobile phone that places more distance between their bodies and the source of the RF, since the exposure level drops off dramatically with distance. For example, they could switch to:

- a mobile phone in which the antenna is located outside the vehicle,
- a hand-held phone with a built-in antenna connected to a different antenna mounted on the outside of the car or built into a separate package, or
- a headset with a remote antenna to a mobile phone carried at the waist.

Again, the scientific data do not demonstrate that mobile phones are harmful. But if people are concerned about the radiofrequency energy from these products, taking the simple precautions outlined above can reduce any possible risk.

Where can I find additional information?

For additional information, see the following websites:

- **Federal Communications Commission** (FCC) RF Safety Program (select "Information on Human Exposure to RF Fields from Cellular and PCS Radio Transmitters")
  http://www.fcc.gov/oet/rfsafety
- **World Health Organization** (WHO) International Commission on Non-Ionizing Radiation Protection (select Qs & As)
  http://www.who.int/emf
- **United Kingdom, National Radiological Protection Board**
  http://www.nrpb.org.uk
- **Cellular Telecommunications Industry Association** (CTIA)
  http://www.wow-com.com
- **U.S. Food and Drug Administration** (FDA) Center for Devices and Radiological Health
  http://www.fda.gov/cdrh/consumer/

Footnotes

1   Muscat et al. Epidemiological Study of Cellular Telephone Use and Malignant Brain Tumors. In: State of the Science Symposium;1999 June 20; Long Beach, California.

2   Tice et al. Tests of mobile phone signals for activity in genotoxicity and other laboratory assays. In: Annual Meeting of the Environmental Mutagen Society; March 29, 1999, Washington, D.C.; and personal communication, unpublished results.

3   Preece, AW, Iwi, G, Davies-Smith, A, Wesnes, K, Butler, S, Lim, E, and Varey, A. Effect of a 915-MHz simulated mobile phone signal on cognitive function in man. Int. J. Radiat. Biol., April 8, 1999.

4   Hardell, L, Nasman, A, Pahlson, A, Hallquist, A and Mild, KH. Use of cellular telephones and the risk for brain tumors: a case-control study. Int. J. Oncol., 15: 113-116, 1999.

Getting Started

Complete the following steps after you have removed your terminal and its components from the box:

1 Attach your belt clip or swivel to your battery (optional).

2 Attach the battery to your terminal.

3 Before using your terminal, fully charge the battery using the charger provided with your terminal.

Attaching Your Belt Clip or Swivel to Your Battery

Attach your belt clip or swivel with the screw provided. Using the belt clip or swivel is optional.

Attaching and Removing Your Battery

Attaching Your Battery

Your terminal comes with a nickel metal hydride (NiMH) battery. The battery is not charged when you buy your terminal, but there may be enough power to turn on the terminal. It is recommended that you charge the battery before you use the terminal.

1 Place the battery on the back of the terminal.

2 Align the tabs on the bottom of the battery with the slots on the bottom of the terminal.

3 Attach the battery to your terminal as shown in the following illustration.
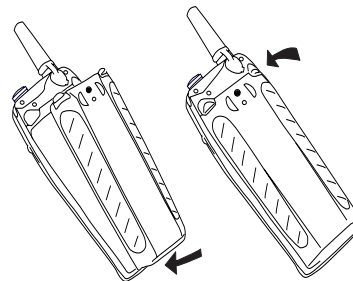
Removing Your Battery

Removing the battery is the reverse of attaching it to the terminal.

1 Make sure that the terminal is turned off before removing the battery.

2 Press the two latches on the top of the battery.

3 Lift the battery up and away from the terminal.
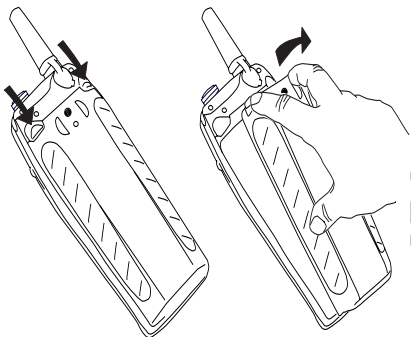
Note! Due to your terminal's water resistance, the battery fits snugly to the back of the terminal. You may have to apply pressure to loosen and remove the battery.

Charging Your Battery

Your terminal is packaged with a rapid charger. You should fully charge the battery before you attempt to use your terminal. While you are charging your terminal with your rapid or travel charger, you will still be able to make and receive calls. You can purchase a travel charger from your nearest Ericsson accessory retailer.

Never attach the charger to a terminal that does not have a battery installed.

1 In Charge Only Mode, the surrounding temperature must be 10-40 C° (50-104°F).

2 Make sure that the battery is attached to the terminal.

3 Connect the charger to the AC power.

4 Connect the other end of the cable to the terminal according to the picture. The flash symbol on the plug must face upward (you may have to press firmly).
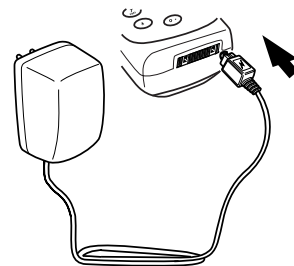
The terminal automatically starts charging the battery when you attach the charger. The following indicate charging:

- The battery meter in the display will continuously fill and empty.
- The indicator on top of the terminal will show a steady red light (green, if the terminal is turned on).

When the battery is fully charged, the battery meter in the display shows full and the indicator on top of the terminal shows a steady green light.

Note! It is possible to use the terminal while the battery is being charged with the rapid charger or travel charger. Using the terminal to make or receive calls while the terminal is being charged will increase the charging time.

To disconnect the charger, first lift the plug connected to the terminal upwards and then pull it out.
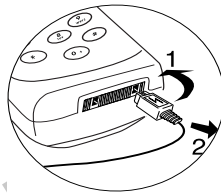
Your Charger

Rapid Charger

The rapid charger supplies power to charge your battery while the battery is attached to your terminal. You can make and receive calls while using the rapid charger, if you wish. To charge your battery with the rapid charger:
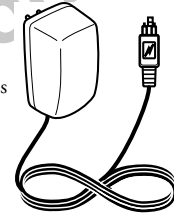
1 Plug the charger into a standard wall electrical outlet.

2 Hold the terminal with the display and keypad up.

3 Hold the small plug on the charger cord so the lightning bolt symbol is up.

4 Align the small plug on the charger cord with the connector on the bottom of your terminal. The connector on the terminal is above the lightning bolt symbol.
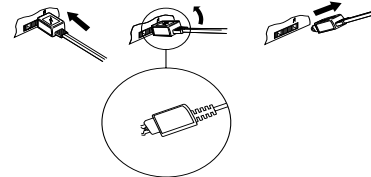
5 Press the plug into the connector until the plug "snaps" into place.

Note!   To disconnect the charger, first twist the plug connected to the terminal upwards and then pull it out.

Desk Stand

The desk stand for your Ericsson rugged terminal serves both as a charger and a holder for the terminal. When the battery runs low, just place the terminal in the desk stand to charge it (the charger must be connected to the desk stand).

1   Place the desk stand on a table.

2   Using the appropriate cord supplied with the charger, attach the terminal to the charger.

3   Plug the other end of the charger cord into a standard electrical wall outlet.

Note!   The lightning bolt (⚡) must face upwards.

4   Place the terminal in the desk stand for charging.
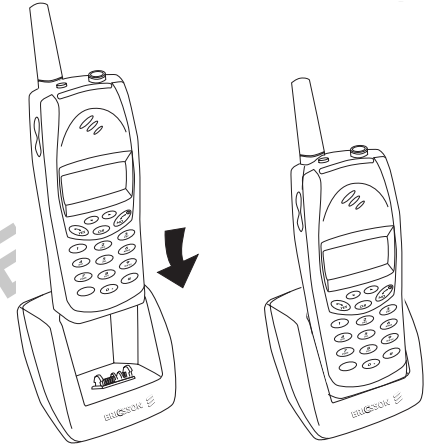
Travel Charger

The travel charger supplies power to charge your battery while the battery is attached to your terminal. You can make and receive calls while using the travel charger, if you wish.

To charge your battery with the travel charger:

1   Using the appropriate cord supplied with the charger, attach the terminal to the charger.
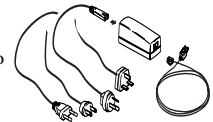
2 Using the other cord supplied, plug the charger into a standard electrical wall outlet.

When to Charge Your Battery

The NiMH battery that comes with your terminal can be charged whenever you wish without losing performance. This is not the case with the cheaper nickel cadmium type batteries, often sold as accessories from other suppliers. For optimal talk and standby time in the long run, we recommend that you only use Ericsson original batteries with your Ericsson terminal.

To remind you that the battery will soon need to be charged or replaced with a charged one, the following will occur:

- An alarm signal (a long beep) sounds and the message `Low Battery!` appears for 10 seconds in the display.
- The indicator light on top of the terminal starts blinking red.

Note! When the terminal is left turned on, the low battery alarm will be repeated several times and, finally, the terminal will turn itself off when the battery is no longer able to power it satisfactorily. It might be possible to turn the terminal on again, but you will not be able to make or receive any calls. You should charge the battery or replace it with a charged one.

Learning About Your Terminal

Your digital wireless terminal is similar in appearance to the illustration below.
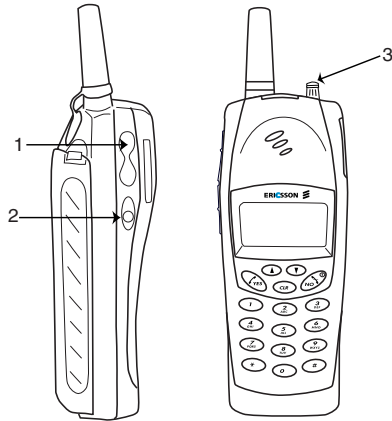
1 Volume Control for Phone Mode

2 Push-To-Talk for Radio Mode

3 Mode/Volume Control

Phone Mode/Radio Mode Operation

Your Ericsson rugged terminal combines phone and push-to-talk radio features in a single terminal. One clockwise turn of the mode control knob (3) changes the mode from Phone Mode to Radio Mode and vice versa. Once a call is made in Phone Mode, the call can be changed to Speaker Mode by switching the mode control knob from Phone Mode (green) to Radio Mode (red).

The terminal operates in Phone Mode when the mode control knob indicates green. While in Phone Mode, the side volume key (1) may be used to adjust the volume. The terminal provides full duplex audio like a standard cellular phone while in Phone mode.

The terminal operates in Radio Mode when the mode control knob indicates red. It operates like a mobile radio on the cellular network with half duplex audio (speak or listen, but not both simultaneously). While in Radio Mode, the mode control knob can also be used to adjust the volume settings. There are 7 volume settings that can be achieved by turning the knob in a clockwise direction.

Once a number is on the display, press the Push-To-Talk (PTT) button (2) to initiate a call in Radio Mode and

press and hold the PTT button to speak. Use the top volume control to select radio audio volume.

> ⚠ **WARNING**
>
> HEARING DAMAGE may occur if the phone is placed closer than 3 inches (7.62 cm) to your ear while it is in Radio Mode. Do not hold the phone less than 3 inches (7.62 cm) to your ear when using Radio Mode.
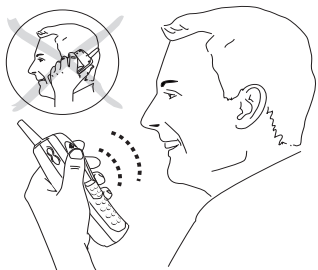
Press the Push-To-Talk (PTT) button to initiate a call in Radio Mode and press and hold the PTT button to speak. Use the top volume control to select radio audio volume.

Display Indicators
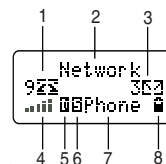
The display shown above represents the standby display.

1 **Voice Mail Icon** indicates that you have voice mail that you have not retrieved. The number indicates the number of messages.

2 **Service Provider** shows the name of your service provider network on the top line.

3 **Text Message Icon** indicates that you have text messages that you have not retrieved. The number indicates the number of messages. An **F** indicates that text message memory is full.

4 **Signal Strength Indicator** shows the relative signal strength from the system. More bars indicate a stronger signal.

5 **System Indicator** shows whether your terminal is operating in a Digital (D), Analog (A), or Private (P) system.

6 **Silent Mode Icon** indicates that the phone is in Silent Mode. This icon is displayed at all times when Silent Mode (S) is selected.

7 **Status Indicator** shows the operating status of your terminal or call type. For example, `InUse` is shown during a call and `Phone` or `Radio` is shown during standby.

8 **Battery Strength Icon** shows the strength of your battery. A full icon indicates a fully-charged battery.

Indicator Light Functions

The color and state of the indicator light on top of your terminal indicates the following conditions:

1 **Slow Flashing Orange** indicates that the terminal is in vibration only mode.

2 **Slow Flashing Green** indicates that the terminal is in standby.

3 **Rapid Flashing Green** indicates that the terminal is receiving a call.

4 **Steady Green** indicates that the terminal is receiving power from an external source, such as a travel charger.

5 **Flashing Red** indicates that the terminal's battery power is low.

Key/Button Function

YES	• Press and hold to turn your terminal On. • Press to place a call while in Phone Mode. • Press to answer a call. • Press to store menu settings. • Press and hold (after entering a number) to make a calling card call while in Phone Mode. • Press and hold (during a call) to send displayed numbers as tones. • Press during a call to switch between calls (call waiting or three-way calling features must be activated by your service provider). • Press to recall the last number dialed when your terminal is in standby.
NO	• Press and hold to turn your terminal On or Off. • Press to end a call. • Press to exit a menu without saving changes made in the menu. • Press to temporarily mute the ringer when receiving a call.

↖	• Press to recall numbers stored in memory, when your terminal is in Standby Mode. • Press twice to recall the last number called, when your terminal is in Standby Mode. • Press to scroll through menus and menu setting selections when your terminal is in Menu Mode, or to scroll through stored numbers. • Press to scroll through messages. • Press and hold to go up through a message, one screen at a time. • Press to increase the volume during a call while in Phone or Private Mode.
↘	• Press to enter Menu Mode. • Press to scroll through menus and menu setting selections when your terminal is in Menu Mode, or to scroll through stored numbers. • Press to scroll through messages. • Press and hold to go down through a message, one screen at a time. • Press to decrease the volume during a call while in Phone or Private Mode.
CLR	• Press to erase the last digit entered from the display. • Press and hold to clear all digits or letters from the display. • Press and hold to delete numbers in memory and text messages. • Press to exit Menu Mode. • Press and hold during a call to mute the microphone (press and hold again to deactivate mute) while in Phone Mode.

Upper Side Key	• Press to increase volume during a call while in Phone Mode.
Lower Side Key	• Press to decrease volume during a call while in Phone Mode.
Mode/ Volume Control	• One clockwise turn of the mode control knob switches the terminal from Phone Mode (indicated by green) to Radio Mode (indicated by red). • Knob increases or decreases the speaker high-level volume for Radio Mode. • Switch mode control knob to indicate red after answering a call in Phone Mode to put phone into Speakerphone Submode. • Turn to increase or decrease the speaker high-level volume for Speakerphone Mode. • Switch knob to indicate green after answering a call in Radio Mode to put phone into Private Submode.
PTT (Push-To-Talk Button)	• Press to place a call in Radio Mode. • Press and hold the **PTT** button to unmute the microphone and mute the speaker during conversation in Radio Mode (releasing the **PTT** button will unmute the speaker and mute the microphone). When placing a call in Radio Mode, the user must press and release the **PTT**, and press and hold the **PTT** a second time to unmute the microphone.

Learning About Your Terminal

Alert Button	• Press to view the default Alert Number.
	• Press and hold to place a call to a preprogrammed Alert Number (in Radio or Phone Mode).
	• **Press and hold during an active call to place a second call to the Alert Number.**
	Note! Your service provider must activate 3-way calling.

Descriptions of Terminal Features

This table lists the distinguishing features of the Ericsson terminal described in this manual.

	R250d PRO
Side Volume Keys	Yes
Phone Number Storage	170 phone numbers, 25 Group numbers, and 5 Alert Numbers
Text Message Memory	2KB maximum
Last Dialed Memory	40 numbers
Caller ID Log	40 numbers

Basic Operations

Turning Your Terminal On and Off

To turn your phone on, press and hold **YES** or **NO** until your terminal beeps. The display and keypad backlighting will come on for about 15 seconds. The display should look similar to this illustration. After your terminal locates the network, your service provider's name appears in the first line of the display. If there is no service provider, then the word Scanning... appears in the first line of the display.

```
┌─────────────────────┐
│                     │
│ .....  Phone    🔒  │
│                     │
└─────────────────────┘
```

To turn your phone off, press and hold **NO** until your terminal beeps and the display goes blank.

Making Calls

Making Calls in Phone Mode

1 Verify that Phone Mode is selected.

2 Enter the phone number you want to call by pressing the numeric keys. The number is shown in the display. Press **CLR** to erase a digit. Press and hold **CLR** to erase all digits.

3 Press **YES**. Dialing is shown in the display while your terminal attempts to access the system. When your terminal accesses the system, InUse is shown on the bottom line of the display. Call replaces Dialing, as shown in this illustration.

```
┌─────────────────────┐
│  Call   00:01       │
│       555-5555      │
│ ..ıll 🔋 InUse 🔋   │
└─────────────────────┘
```
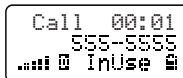
If the **Call Timer** is enabled, the duration of the call (in minutes and seconds) is shown in the display beside Call.

4 When you finish your conversation, press **NO** to end the call.

Making Calls in Radio Mode

1 Verify that Radio Mode is selected.

2 Enter the phone number you want to call by pressing the numeric keys. The number is shown in the display. Press **CLR** to erase a digit. Press and hold **CLR** to erase all digits.

3 Press **PTT**. Dialing is shown in the display while your terminal attempts to access the system. When

your terminal accesses the system, `InUse` is shown on the bottom line of the display. `Call` replaces `Dialing`, as shown in this illustration.

```
 ┌─────────────────────┐
 │   Call   00:01      │
 │           555-5555  │
 │ ..ıll ▯ InUse ▤     │
 └─────────────────────┘
```
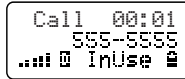
Note! Remember to keep the terminal at least 3 inches (7.62 cm) away from your ear while placing a call in Radio Mode.

If the **Call Timer** is enabled, the duration of the call (in minutes and seconds) is shown in the display beside `Call`.

4 When you finish your conversation, press **NO** to end the call.

Automatic Redial

If you try to place a call and the system is not available, your terminal automatically redials the number every 15 seconds for three minutes if the Auto Retry feature is enabled (see Call Setup Menu).

Redialing the Last Number You Called

Your terminal temporarily stores numbers you have previously called. To view these numbers, press ↖ twice. The last number you called is shown in the display. Press ↖ or ↘ to scroll through the other numbers. You can place a call to a number shown in the display by pressing **YES** in Phone Mode or **PTT** in Radio Mode. You can also view the last numbers you called through the **MEMORY** Menu.

Super Dial (Phone Mode Only)

The **Super Dial** feature (when enabled through the **Call Setup** Menu) gives you one-touch dialing for phone numbers stored in memory locations 1 through 9.

To use **Super Dial**, press and hold the numeric key (1-9) that corresponds to the memory location containing the number you want to call. For example, if you want to call the number stored in memory location 7, press and hold 7.

Speed Dial

The **Speed Dial** feature (when enabled through the **CALL SETUP** Menu) lets you quickly dial a phone number stored in memory.

To use **Speed Dial**, enter the number of the memory location containing the number you want to call, then press **YES** in Phone Mode or **PTT** in Radio Mode. For example, if you want to call the number stored in memory location 12, press **1**, then press **2** and press **YES** in Phone Mode or **PTT** in Radio Mode.

Stop and Pause Dialing

Stop and pause dialing lets you enter a group of numbers with stops and/or pauses between groups. This feature is useful when you need to dial a phone number and then another number, such as an access number for an answering machine or voice mail system.

A *stop* causes the terminal to stop transmitting numbers until you press **YES**. You can enter a stop in a series of digits by pressing and holding # until S is shown in the display.

A *pause* temporarily suspends transmitting numbers for approximately two seconds before sending the next series. You can enter a pause in a series of digits by pressing and holding * until P is shown in the display.

For example, if your office has a voice mail system that requires you to dial a phone number, followed by your extension, followed by an access code, you could enter the following: 555-1111S2222P33333 where 555-1111 is the phone number to enter your voice mail system. S is a stop. 2222 is your extension. P is a pause. 33333 is your security code.

When you press **YES** in Phone Mode or **PTT** in Radio Mode, your terminal dials the number and then stops transmitting tones. When your voice mail system asks for your extension, press **YES** to transmit your extension. After a two second pause, your access code is automatically transmitted.

If the timing in your voice mail system does not allow you to use a pause, you can enter a stop instead of the pause.

You can also store groups of numbers with stops and pauses, such as the above example, in a memory location. You can then dial the numbers by entering the memory location and pressing **YES**.

Answering Calls

Answering Calls in Phone Mode

When your terminal receives a call, the ring tone sounds (unless you have disabled it through the **SOUNDS** Menu), the words Call Receive flash in the display, the display and keypad backlighting flash, and the indicator light on top of the terminal rapidly flashes green.

If you have caller ID service from your system, the caller's terminal number is shown in the display. If the caller's number is stored in the terminal memory, the name stored with the number is also shown.

1   Press any key except **NO** to answer the call. The words Call Receive are replaced by the call timer (if it is enabled).

2   Press **NO** to end the call.

Answering Calls in Radio Mode

1   To answer a call in Radio Mode, press any key except the **NO** key. If auto answer is selected, then the terminal will automatically answer the incoming call.

2   Press **NO** to end the call.

Temporarily Muting the Ring Tone

To temporarily mute the ring tone without answering the call, press **NO** on the front keypad.

Call Receive is still shown in the display, and you can still answer the call by pressing any key except **NO**.

Unanswered Calls

Your terminal's display shows the number of calls you have received but did not answer. You can clear the number from the display by pressing any key or by turning the terminal Off.

If Caller Number Identification (CNI) is available from your service provider, unanswered calls will be stored in the ReceiveLog section of the **CALL DATA** Menu.

You can delete a number from the Last Dialed list by pressing and holding **CLR** while the number is shown in the display.

While On a Call

Using Speakerphone Submode

While on an active call in Phone Mode, the terminal will switch to Speakerphone if the mode control knob indicates red.

Using Private Submode

While on an active call in Radio Mode, the terminal will switch to Private Submode if the mode control knob is switched to indicate green. The terminal will operate the same as it does in Phone Mode conversation.

Increasing or Decreasing Volume During a Call in Phone Mode

To increase the speaker volume during a call, press the upper key on the side of your terminal. To decrease the speaker volume during a call, press the lower key on the side of your terminal.

Muting the Microphone During a Call in Phone Mode

To mute the microphone during a call, press **CLR** for one second or longer. Mic Muted is shown in the display. Press **CLR** again (for one second or longer) to return to your call.

Call Waiting

If you have call waiting service from your service provider, press **YES** to answer a call when you receive the call waiting signal. You can switch between the two calls by pressing **YES**. **Do Not** press **NO** until you are ready to end both calls.

Radio Mode Volume Control

To increase or decrease the speaker high-level volume while you are in Radio Mode, rotate the volume control

knob. Rotate the knob clockwise to increase volume and counterclockwise to decrease volume.

> ⚠ **WARNING**
> HEARING DAMAGE may occur if the phone is placed closer than 3 inches (7.62 cm) to your ear while it is in Radio Mode. Do not hold the phone less than 3 inches (7.62 cm) to your ear when using Radio Mode.

Emergency Calls

Your terminal can be programmed with an emergency number. The programmed emergency number can be dialed and called at any time, regardless of any call restrictions (except Keypad Lock) you have set through the **LOCKS** Menu. A representative from your service provider or the retail outlet where you purchased your terminal can change or program the emergency number in your terminal.

If police, fire, or medical help is needed, dial your emergency number and press **YES**. Tell the dispatcher that you are calling from a wireless terminal. Wireless emergency calls do not automatically provide emergency personnel with your name, location, or terminal number. The dispatcher will want to know the following:

1 Your name and wireless phone number.

2 The nature of the emergency.

3 If police, fire, or medical assistance is needed.

4 The exact location of the emergency including cross streets, mileposts, or landmarks.

5 How many people are involved, their condition, and if help is being administered.

Alert Calls

Use the Alert button on your terminal to automatically call a programmed Alert Number. To place a call, press and hold the Alert button. To display the programmed Alert Number, press and release the Alert button. Press ↖ or ↘ to select any of the 5 Alert Numbers that have been programmed into your phone. To change any of the stored Alert Numbers, see the section Recalling Numbers.

International Calls

If allowed by your service provider, you can place international calls with your terminal just as you would from any phone. If you have difficulty completing international calls, check with your service provider for information.

Caller Number Identification

If your service provider offers **Caller ID** service, your terminal shows the phone number of an incoming call in

the display. Also, if the number is one that you have stored in memory with a name, the name is shown with the phone number when your terminal rings. If the **Caller ID** information is not available, the message `NO ID` or a blank line is shown in the display. The word `Private` may be shown if the caller ID is restricted by the system.

Low Battery Power Alert

The low battery alert sounds when your battery is reaching its lowest operational power level. The words `Low Battery` flash in the display, and the indicator light on top of your terminal flashes red. When this happens, leave your terminal turned On. The terminal discharges the battery and then shuts itself Off. You should charge the battery within 24 hours so that the battery can charge to full capacity.

Security Code

Your terminal has a security code that you must enter to gain access to certain functions, such as call restrictions and calling card numbers. The factory-programmed code is **0000**. You should change this code to provide maximum security for your terminal.

Group Calling with TDMA Pro

If your service provider has the Ericsson TDMA Pro Server, your terminal supports group calling. Ericsson TDMA Pro supports calling a group of phones by dialing a single group number defined in the TDMA Pro database. When the terminal calls a group or receives a group number, the display will indicate the group name associated with the number on the second line of the display.

```
 Network
 Group Name
.ıllı □ Radio  ∎
```

When the call is active, the terminal will display the group or alert call type on the third line of the display as shown below.

```
 Network
 Group Name
.ıllı □ Talk    ∎
```

The following group call types may be available:

- Talk – A group call where all member numbers are dialed simultaneously and each member is included when the terminal is answered. An active Talk group call includes all members of the group who answered the call. This is a two-way voice conversa-

tion. Your terminal will automatically answer Talk group calls when Radio Mode is selected.

- Broadcast – A group call where live or pre-recorded broadcast voice is sent to all member numbers of the group when the terminal is answered. This is a one-way voice conversation. Your terminal will automatically answer Broadcast group calls when Radio Mode is selected.

- Sequential – A group call where each member number is dialed in a sequential order until one member answers. When one member answers, the call is active. This is a two-way voice conversation.

- First Answer – A group call where all member numbers are dialed simultaneously until one member answers. When one member answers, the call is active and ringing stops on the other terminals. This is a two-way voice conversation.

Your Ericsson rugged terminal provides a flashing display when answering a call associated with an Alert number stored in the TDMA Pro database or the terminal Alert number memory. The terminal can store 25 group numbers and five Alert numbers. You must enter your security code before you can store or delete Group numbers or Alert numbers.

Contact your service provider for more information on TDMA Pro.

Display Messages

Call Receive	Your terminal is receiving a call.
Dialing	Your terminal is dialing the number shown in the display.
InUse	You have a call active.
Call MM:SS	The elapsed time of your active call, in minutes and seconds.
Low Battery!	The battery is reaching its lowest operational power level.
System Busy!	Your system has no channels available. Try again later.
_ _ _ _ _	The terminal is searching for a system.
## Calls	The numbers of calls you have not answered.
Mic Muted	The microphone is muted.
Phone Locked	The terminal is locked to prevent unauthorized use.
Keypad Lock	The keypad is locked to prevent unauthorized use.
Call is Restricted	You attempted to call a terminal number that is restricted in the **LOCKS** Menu.
Charging Only	The terminal is in charge-only mode and will not make or receive calls.
Charging Complete	Charging is finished.
Phone	The terminal is operating in Phone Mode.
Radio	The terminal is operating in Radio Mode.
Mode Change!	The terminal has changed modes.

Spkr	The terminal has an active call in Speakerphone Submode.
Priv	The terminal has an active call in Private Sub-mode.
Bcst	The terminal has an active Broadcast Group Call.
Talk	The terminal has an active talk group call.
Sequ	The terminal has an active sequential group call.
FAns	The terminal has an active first answer group call.
No Service	The terminal is searching for a wireless system.

Summary of Basic Operations

To Do This:	Press:
Turn your terminal On	Press and hold **YES** or **NO**.
Turn your terminal Off	Press and hold **NO**.
Decrease volume during a call in Phone Mode	Press ↘ or lower side key.
Increase volume during a call in Phone Mode	Press ↖ or upper side key.
Answer a call	Press any key except **NO**.
End a call	Press **NO**.
Enter Menu Mode	Press ↘.
Enter Menu Mode during a call	Press and hold ↘.
Go back one level in Menu Mode	Press **NO**.

To Do This:	Press:
Exit Menu Mode	Press **CLR**.
Scroll through menus or menu settings	Press ↖ or ↘.
Erase the last digit/letter entered	Press **CLR**.
Erase all digits/letters entered	Press and hold **CLR**.
Call the number shown in the display in phone mode	Press **YES**.
Recall a recently dialed number from memory	Press ↖ ↖ and **YES** or press **YES** twice.
Save the text message you are reading	Press **YES**.
Select a highlighted menu setting	Press **YES**.
Switch Keypad Lock On and Off	Press ↘ then *.
Switch Silent Mode On and Off	Press ↘ then #.
Call number in display using calling card in Phone Mode	Press and hold **YES**.
Send DTMF tones during a call	Press and hold **YES**.
Quick Access to Voice Mail	Press and hold ↖ or ↘, then ↖ or ↘, then **YES**.
Quick Access to Text Messages	Press and hold ↖ or ↘, then **YES**.
Mute your voice during a call	Press and hold **CLR**.
Mute the ringer when a call is received in Radio or Phone Mode	Press **NO**.
Access RCL mode (recall names, numbers and memory positions stored in memory)	Press ↖ and press **YES**.
Call the number shown in the display in Radio Mode	Press the **PTT**.

To Do This:	Press:
Speak during active Radio Mode call	Press and hold **PTT**.
Increase/decrease volume in Radio Mode	Rotate top volume knob.
Change from Phone Mode to Radio Mode	Switch mode control knob from green to red.
Change from Radio Mode to Phone Mode	Switch mode control knob from red to green.
Put into Speakerphone Submode	Switch mode control knob to indicate red after answering a call in Phone Mode.
Put into Private Submode	Switch mode control knob to indicate green after answering a call in Radio Mode.

Using Menus

This chapter explains how to use your terminal's menus. You should read this chapter thoroughly to understand how to navigate through the menu system and how to change menu settings.

Your terminal's menus are an easy way for you to:

- Store and recall numbers in memory
- Check text messages and voice mail
- Set up call features
- Change ring tone and other sound settings
- Change other settings for your terminal

Opening Menus

To open the main menu, press ↘. Main Menus and the names of the first two menus are shown in the display. Pressing **NO** when the main menu is shown in the display returns your terminal to standby mode.

```
‡Main Menus‡
1▶Memory
2 Messages
```

To open one of the submenus:

1   Press ↘ or ↖ to scroll through the list of submenus.

2   When the menu pointer (▶) is beside the submenu you want to open, press **YES**. The list of settings for the submenu is shown in the display.

3   You can scroll through the list of settings by pressing ↘ or ↖.

4   To back up to the list of submenus, press **NO**. Pressing **NO** from a list of submenu settings returns you to the main menu list.

Changing Settings

Open the menus as previously described, then:

1   Press ↘ or ↖ to scroll through the list until the menu pointer is beside the setting you want to change.

2   Press **YES**. The choices available for the setting are shown in the display. The current active choice is enclosed in brackets. Some settings have two choices, such as On and Off for the Speed Dial setting in the **CALL SETUP** Menu. Other settings have a list of choices, such as the Ring Pulse setting in the **SOUNDS** Menu.

3   Press **YES** to store the choice you selected or press **NO** if you want to exit the menus without storing any changes you have made. If you store your changes, the words SELECTION STORED! are shown briefly in the display. The list of settings is then shown in the display.

Exiting Menu Mode

Press **NO** at any menu level to go back one level. Press **CLR** to exit menu mode.

Note!   If your terminal receives a call while it is in Menu Mode, the terminal automatically exits menu mode to allow you to answer the call.

Quickly Accessing Menus

If you know the numbers associated with the submenu and setting you want to change, you can quickly access that submenu and setting by pressing ⬎, followed by the number of the submenu and then the number of the setting. For example, suppose you want to change the sound the keys on your terminal make when you press them. Since **Sounds** submenu is number **6**, and the Key Sounds setting is number **3**, you could press ⬎, then **6**, then **3** to go directly to the choices for Key Sounds.

Examples of Using Menus

Turning Minute Minder ON

1   Press ⬎. The main menu list is shown in the display.

2   Press ⬎ or ⬉ until the menu pointer (▸) is beside **Call Setup**.

```
4 Gen. Setup
5▸Call Setup
6 Sounds
```

3   Press **YES**. The **CALL SETUP** Menu settings are shown in the display.

4   Press ⬎ or ⬉ until the menu pointer is beside MinuteMind.

5   Press **YES**. The choices for MinuteMind (ON and OFF) are shown in the display.

6   Press ⬎ or ⬉ until [ON] is enclosed in brackets.

7   Press **YES**. SELECTION STORED! is shown briefly in the display, then the settings list for the **CALL SETUP** Menu is shown.

8   Press **CLR** to exit Menu Mode.

Changing the Volume of the Ring Tone in Phone Mode

1   Press ⬎. The main menu list is shown in the display.

2   Press ⬇ or ⬉ until the menu pointer (▶) is beside
    Sounds.

3   Press **YES**. The **SOUNDS** Menu settings are shown
    in the display.

4   Press ⬇ or ⬉ until the menu pointer is beside
    Ring Volume.

5   Press **YES**. The list of choices for **Ring Volume** are
    shown in the display.

    Off
    High
    Escalating
    Medium
    Low
    Extra-Low

6   Press ⬇ or ⬉ until the menu pointer is beside the
    Ring Volume choice you want. As you scroll
    through the choices, the terminal sounds the ring
    volume for each choice.

7   Press **YES** to store your choice. SELECTION
    STORED! is shown briefly in the display, then the
    SOUNDS Menu settings are shown.

8   Press **CLR** to exit Menu Mode.

Menu Overview

The following list shows the menus and settings for your terminal. Options
that require you to enter the security code are marked with a "+".

1 Memory	1 Store Mem.
	2 RCL Mem.
	3 StoreScrpd
	4 RCL ScrPad
	5 RCL LastNo
	6 MemoryUsed
2 Messages	1 UnreadText
	2 Old Text
	3 Delete All
	4 VoiceMsgs1
	5 VoiceMsgs2
3 System Opt	1 Sys Select
	2 Home Only *
	3 Phone No. +
	4 SystemInfo
	5 Privacy
	6 Time/Date

* This menu item is dependent
upon your service provider and
may not appear.

4 Gen. Setup	1 KeypadLock	7 Call Data	1 ReceiveLog
	2 Back Light		2 Last Time
	3 Contrast		3 Elapsed
	4 Greeting		4 Call Count
	5 Language +		5 Time Count
	6 MenuReset +	8 Locks +	1 Auto Lock
	7 Noise Canc (Handsfree Only)		2 Dialing
	8 Echo Canc (Handsfree Only)		3 Call Cards
	9 Training (Handsfree Only)		4 Receiving
5 Call Setup	1 Super Dial		5 Sec. Code
	2 Speed Dial	9 Call Cards +	1 CardSelect
	3 Answer Opt		2 Card1Setup
	4 Call Timer		3 Card2Setup
	5 MinuteMind	0 Terminal	1 Radio Setup
	6 Auto Area		2 Group Setup
	7 AutoPrefix		3 Alert Setup
	8 Auto Retry		
	9 Tone Send		
	0 AccessTone		
6 Sounds	1 SilentMode		
	2 Msg Tone		
	3 Key Sound		
	4 Key Volume		
	5 Ear Volume		
	6 SpeakerVol		
	7 Ring Pulse		
	8 Ring Pitch		
	9 RingVolume		
	0 Alert		

Using Menus

Storing and Recalling Numbers

You can store phone numbers and associated names in your terminal's memory to use for Recall dialing, Speed Dial, and Super Dial. Each number you store can be up to 32 digits in length, and any names you store can be up to 24 characters in length. Group and Alert Numbers are accessed through **Group Setup** and **Alert Setup** submenus.

Note! The number of phone numbers that your terminal can store is based on each number containing 12 digits and having an eight-character name stored with the number. Storing longer numbers and names reduces the amount of memory available and the actual numbers you can store. You can view the percentage of memory used and available through the **MEMORY** Menu.

Storing Numbers

Storing a Number and Name in Memory

There are two ways you can do this:

1   Store a number using the **MEMORY** Menu.

2   Store a number shown in the display.

Storing a Number by Using the Memory Menu

1   Press ➘ to access Menu Mode.

2   Press ➘ or ⬉ until the menu pointer (▶) is beside Memory.

```
‡Main Menus‡
1▶Memory
2 Messages
```

3   Press **YES** to open the **MEMORY** Menu.

4   Press ➘ or ⬉ until the menu pointer is beside Store Mem.

5   Press **YES** to open the **Store Mem** selection. The next open memory location is shown in the display, similar to this illustration.

```
Name:        ■
No:
STORE:    003
```
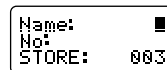
6   Enter a name you want associated with this telephone number. The following table shows which keys to press and the number of times you must press them to enter letters.

7   Press ➘ to move the cursor to the No: line in the display.

8   Enter the phone number you want to store.

Note!   To enter letters from the keypad, you must press a key from one to five times, depending on which letter you want to enter.

Press This	Number of Times				
	One	Two	Three	Four	Five
1	space	&	1		
2	A	B	C	2	
3	D	E	F	3	
4	G	H	I	4	
5	J	K	L	5	
6	M	N	O	6	
7	P	Q	R	S	7
8	T	U	V	8	
9	W	X	Y	Z	9
0	0				
*	,	'	"	*	
#	-	.	?	#	

9   Press **YES** to store the number. Stored in memory! is shown in the display.

Storing a Number Shown in the Display

1   Enter a number.

2   With the number shown in the display, press ↘ to access Menu Mode.

3   Press ↘ or ↖ until the menu pointer is beside Memory.

4   Press **YES** to open the **MEMORY** Menu.

5   Press ↘ until the menu pointer is beside Store Mem.

6   Press **YES** to open the Store Mem selection. The number is shown in the No: line of the Store Mem display.

7   If you want to enter a name to be associated with this number, enter it now on the Name: line.

8   Press **YES** to store the number in memory.

Specifying a Memory Location

If you want to store a phone number in a specific memory location, follow the previous steps for entering the number and name, then press ↘ to move the cursor to the STORE: line. Enter the memory location number.

Phone numbers stored in locations one through nine can be used with the Super Dial feature in Phone Mode. All one- and two-digit memory locations can be used with the Speed Dial feature for Phone Mode and Radio Mode.

Storing a Number in Secure Memory

A number stored in secure memory cannot be recalled unless you enter the correct security code. To store a number in secure memory, follow the previously

described steps for entering a name and number, then press and hold **YES**. The terminal prompts you to enter your security code. If you enter the correct code, the number is stored and `Stored Securely in Memory` is shown in the display.
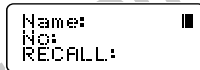
Storing a Group Number or Alert Number

A number cannot be stored in Group memory or Alert memory unless you enter the correct security code. To store a number, select the appropriate submenu. The terminal prompts you to enter your security code. If you enter the correct code, the terminal will allow you to store a number. Follow the same procedure as Storing Numbers.

Recalling Numbers

Recalling a Number Using the Up Arrow

1   Press ↖. The display will look similar to this illustration.

```
Name:
No:               ▮
RECALL:
```

2   To recall by name, press the key which represents the first letters of the name.

OR

To recall by number press ↘ twice to move the cursor to the `RECALL:` line and enter the memory location where the number is stored.

3   Press **YES**. The number is displayed after a two-second timeout.

Recalling Previously Dialed Numbers

For instructions on how to recall previously dialed numbers, see Redialing a Number Using the Up Arrow.

Recalling a Number Using the Memory Menu

1   Press ↘ to access Menu Mode.

2   Press ↘ or ↖ until the menu pointer is beside `Memory`.

3   Press **YES** to open the **MEMORY** Menu.

4   Press ↘ or ↖ until the menu pointer is beside `RCL Mem`.

5   Press **YES** to open the `RCL Mem.` display. You can recall a number in memory by the location number or by name.

6   To recall by name, enter the letters of the name in the `Name:` line. You can enter just a few letters of the name or the complete name. If you enter just a few letters, the terminal finds the first name in memory that begins with the letters you entered.

OR

7 If you want to search by the location number, press ⬎ until the cursor is on the RECALL: line and enter the number. The number is shown in the display.

8 You can place a call to the number in the display by pressing **YES** in Phone Mode or **PTT** in Radio Mode.

Recalling a Number From Secure Memory

1 Follow the previously described steps for opening **RCL Mem**. in the **MEMORY** Menu.

2 Press ⬎ until the cursor is on the RECALL: line.

3 Enter the location of the number stored in secure memory.

4 Press ⬉. Security Code: is shown in the display.

5 Enter your security code.

6 If you enter the correct security code, the number is shown in the display.

Recalling a Group or Alert Number

Recalling a Group Number or Alert Number operates the same as normal (non-secure) numbers.

Altering or Erasing Numbers

Altering a Number in Memory

You can alter or delete a number in memory by doing the following:

1 Recall the number as previously described.

2 When the number is shown in the display, press ⬎ or ⬉ to move the cursor to the No: line.

3 To add digits to the end of the number, just enter the digits.

4 To replace digits, press **CLR** to erase the digits you want to change and then enter the new digits.

5 Press **YES** to store the altered number. The message Same name in memory 000 Save anyway? is shown in the display.

6 Press **YES** to replace the number you previously stored with the modified number.

Erasing a Number From Memory

1 Press ⬉.

2 Press ⬎ until the number and name you want to erase is shown in the display.

3 Press and hold **CLR**. Erase memory? Location 000 is shown in the display.

4   Press **YES** to erase the number from memory.
`Memory is erased!` is shown briefly in the display.

Altering or Erasing a Group Number or Alert Number

A Group Number or Alert Number cannot be altered or erased unless you enter the correct security code. To alter or erase a number, follow the procedure for non-secure numbers. The terminal prompts you to enter your security code before the number is modified. If you enter the correct code, you can modify the phone number.

Message Services

Your terminal can receive two types of message service (text messages and voice mail) if these services are available from your service provider. If you subscribe to either or both services, callers can leave you text messages or voice mail. Your service provider then transmits the text messages and voice mail notifications to your terminal.

Text Message Service

Your terminal supports three message categories: *Normal, Urgent,* and *Emergency.* The actual tagging of the text message is dependent on the system used by your service provider. Your service provider transmits messages to your terminal. If your terminal is On, it receives the messages as described below. If your terminal is not turned On, your service provider retains the messages and transmits them again later.
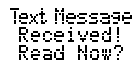
Note!   Your Ericsson rugged terminal holds up to 10 messages or a maximum of 2KB of message text.

When reviewing a text message, the status of the text message is shown using the following letters:

- R – Read, text message has been read but not saved.
- S – Saved, text message has been read and saved.
- U – Unread, text message has not been read.

Normal Messages

If your terminal is turned On when it receives a normal text message, your terminal sounds a brief tone and a message similar to the one in this illustration is shown in the display. After 10 seconds, the message will be saved and the text message icon ($\boxtimes$) will appear in the display. You have a choice of reading the message immediately by pressing **YES**, or reading it later by pressing **NO**. Pressing **NO** clears the message received alert from the display and places a number and icon in the display to remind you of your messages.

```
Text Message
Received!
Read Now?
```

Urgent Messages

If your terminal is turned On when it receives an urgent text message, your terminal sounds a brief tone and a message similar to the one in this illustration is shown in the display. As with normal messages, you have a choice of reading the message immediately or reading it later. Urgent messages are always shown before normal messages, regardless of the order in which they were received.

```
Urgent Msg
Received!
Read Now?
```

Emergency Messages

If your terminal is turned On when it receives an emergency message, your terminal sounds two brief tones, and a message similar to the one in this illustration is shown in the display for a few seconds.

```
Emergency
Msg Received
Read Now?
```

Reading Text Messages Immediately

When a message received notice is shown in the display, you can read the message by pressing **YES**. You can scroll through the message one line at a time by pressing and releasing ↓ or ↖. You can scroll up or down through the message three lines at a time by pressing and holding ↓ or ↖.

Call-Back Messages

Some text messages you receive may be *call-back messages*. A call-back message contains one or more phone numbers included by the person sending the message. If you press **YES** while reading a call-back message, a screen similar to the one shown here appears. To dial the displayed number, press **YES** (to place a calling card call to the displayed number, press and hold **YES**). If you do

not wish to call the displayed number, press **NO** to resume reading the actual message.

```
CALL?      ▼▲
555 1212
```

The up and down arrows in the top right part of the display indicate that there is more than one number in the message. (The arrows would not appear if there were just one number.) You can scroll through the available numbers by pressing ↓ or ↖. When you see the desired number, press **YES** to dial that number.

If you do not call back the number in the message, you have the same options for saving and deleting the message as you do with other text messages.

If you like, you can edit a displayed call-back number before you make the call. In the display, the cursor appears in reverse video, and it is initially positioned at the far left of the second line. In editing the number, you can:

- Enter a number at the cursor location by pressing a number key. If a digit is already in the cursor location, that digit, as well as all digits to its right, move one position to the right.

- Clear the digit at the cursor location by pressing **CLR**.

- Move the cursor position without clearing anything by pressing and holding ↓ or ↖.

Receiving Messages While on a Call

When you receive a message while on a call, your terminal sounds a brief tone and a message similar to the one in this illustration is shown in the display. Press **YES** to display the incoming message, or press **NO** to continue talking and have the message treated as an unread message.

```
Text Message
  Received!
  Read Now?
```

You cannot receive messages during a call if the message memory is full.

Retrieving Unread Text Messages

If you have messages that you have not read, a number and the text message icon are shown in the display. If the letter **F** is shown with the icon, your terminal's text message memory is full.

To read these messages:

1   Press ⬇ to enter Menu Mode.

2   Press ⬇ or ↖ until the menu pointer is beside Messages.

3   Press **YES** to open the **MESSAGES** Menu.

4   Press ⬇ or ↖ until the menu pointer is beside UnreadText.

5   Press **YES** to open the list of messages.

6   Press ⬇ or ↖ until the menu pointer is beside the message you want to read.

7   Press **YES** to open the message. Once the message is open, you can scroll through the message one line at a time by pressing ⬇ or ↖. You can scroll up or down through the message three lines at a time by pressing and holding ⬇ or ↖.

Retrieving Saved Text Messages

To read saved messages:

1   Press ⬇ to enter Menu Mode.

2   Press ⬇ or ↖ until the menu pointer is beside Messages.

3   Press **YES** to open the **MESSAGES** Menu.

4   Press ⬇ or ↖ until the menu pointer is beside Old Text.

5   Press **YES** to open the list of messages.

6   Press ⬇ or ↖ until the menu pointer is beside the message you want to read.

7   Press **YES** to open the message. Once the message is open, you can scroll through the message one line at a time by pressing and releasing ⬇ or ↖. You can scroll up or down through the message three lines at a time by pressing and holding ⬇ or ↖.

Saving and Deleting Text Messages

After you have retrieved and read a text message, you can:

- **Save the message to memory:**
  Press and hold **YES**.

- **Delete the message:**
  Press and hold **CLR**.

- **Move to the next message:**
  Press **1**.

- **Return to the previous message:**
  Press **3**.
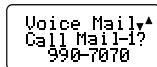
Note! Saved text messages are retained. Unsaved text messages are retained only until the space is needed for new messages.

Voice Mail Service

Your terminal can receive voice mail notification when it is turned On. If your service provider transmits the notification and your terminal is turned Off, you will receive notification the next time you turn your terminal On.
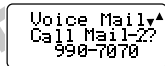
Receiving Voice Mail When Your Terminal Is in Standby

If your terminal is turned ON and is in standby when it receives a voice mail notice, your terminal sounds a brief tone. If you have previously stored a home-system access number, a message similar to the one in this illustration is shown in the display.
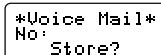
```
Voice Mail▼
Call Mail-1?
  990-7070
```

To call the number shown, press **YES** in Phone Mode or **PTT** in Radio Mode. To return to Standby Mode, press **NO**. To access a non-home system access number (if you have previously stored it), press ↘, ↖. You will then see a message similar to the one in this illustration.

```
Voice Mail▼
Call Mail-2?
  990-7070
```

If you have not stored an access number, or if you have stored only one access number and attempt to scroll to another number, you will see Access Number Not Stored when you receive a voice mail notice. After the Access Number Not Stored screen has been displayed for five seconds, your terminal displays another screen, similar to the one in this illustration, that gives you the opportunity to store an access number.

```
*Voice Mail*
No:
   Store?
```

The number is stored as Mail-1 if no access number had been previously stored, or as Mail-2 if one number had already been stored. After you store the number, your terminal displays a screen asking if you want to call that number.

Receiving Voice Mail During a Call

If your terminal receives a voice mail notice during a call, a brief tone sounds and Voice Mail Received is briefly shown in the display.

After you end your call, a number and the voice mail icon are shown in the display.

Listening to Voice Mail When the Icon Is Shown in the Display

If there is a number beside the voice mail icon in the display, you have voice mail messages that you have not heard. To listen to these voice mail messages:

1   Press ⬐ to enter Menu Mode.

2   Press ⬐ until the menu pointer is beside Messages.

3   Press **YES** to open the **MESSAGES** menu.

4   Press ⬐ until the menu pointer is beside either VoiceMsgs1 or VoiceMsgs2.

5   To access your home-system access number, move the cursor to VoiceMsgs1 and press **YES**. To access your non-home system access number, move the cursor to VoiceMsgs2 and press **YES**. (You can make a credit card call by pressing and holding **YES** while in Phone Mode if you previously set up the option.)

Note!   To set up calling cards, refer to the **CALL CARDS** Menu section in the Menu Descriptions chapter

6   If you have not stored your voice mail number, enter it now.

7   Press **YES** in Phone Mode or **PTT** in Radio Mode to call your selected access number.

Storing Your Voice Mail Number

You can store a home-system voice mail access number and a non-home system access number. It is a good idea to store your voice mail access number(s) so that a number automatically displays when you receive a voice mail notice.

1   Press ⬐ to enter Menu Mode.

2   Press ⬐ until the menu pointer is beside Messages.

3   Press **YES** to open the **MESSAGES** Menu.

4   To store a home-system access number, move the cursor to VoiceMsgs1 and press **YES**. To store a non-home system access number, move the cursor to VoiceMsgs2 and press **YES**.

5   Enter your voice mail phone number on the No: line.

6   Press **YES**. SELECTION STORED! is shown in the display.

7   Press **NO** twice to exit Menu Mode.

Quick Access to Text and Voice Mail Messages

The Quick Message feature lets you quickly read text messages or retrieve voice mail messages. To access the Quick Message feature, press and hold either ↘ or ↖. What happens next depends on which types of messages are available:

- If *only* text messages are waiting, Read Text Messages? is shown in the display. Press **YES** to go directly to the **READ TEXT MESSAGE** Menu. Press **NO** to return to Standby Mode.

- If only voice mail messages are waiting, Get Voice Mail Msgs? is shown in the display. Press **YES** to call your voice mail access number.

- If both text *and* voice mail messages are waiting, your terminal displays a modified version of the Read Text Messages? screen, as shown in the illustration.

```
Read Text ▲▼
Messages?
10 New Msgs
```
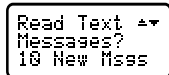
In the upper right corner of this screen are two arrows, which indicate that both voice and text messages are available. From here, you can access the **READ TEXT MESSAGE** Menu by pressing **YES**, or you can go to the Get Voice Mail Msgs? screen by pressing **NO**, ↘, ↖. The Read Text Messages? and Get Voice Mail

Msgs? screens are circular. To switch back and forth between the two screens press ↘ or ↖.

Menu Descriptions

Press ↘ to access the menus.

Press ↘ or ↖ to scroll through menus, functions in menus, and settings in a function.

Press **YES** to select a menu, function, or setting which is beside the menu pointer (⊩).

Press **NO** to go back one level in the menu structure.

Press **CLR** to exit the menus completely.

Memory Menu

The **MEMORY** Menu contains the following choices for storing and recalling numbers.

Store Mem

Use **Store Mem.** to store a phone number and an accompanying name.

RCL Mem.

RCL Mem. lets you recall a phone number by the name stored with the number or by the memory location number. You can also access **RCL Mem.** by pressing ↖.

StoreScrpd

Use **StoreScrpd** to store, in the scratch pad memory, a number shown in the display.

RCL ScrPad

RCL ScrPad lets you recall a number stored in the scratch pad memory. You can also view the numbers in the scratch pad memory by pressing ↖, then #.

RCL LastNo

Use **RCL LastNo** to view the list of numbers you previously called. You can also view the last numbers called by pressing ↖ twice.

MemoryUsed

MemoryUsed shows you the percentage of the terminal's memory that is occupied.

Messages Menu

The **MESSAGES** Menu contains the following choices for accessing services that may be available from your provider.

UnreadText

If you have text message service from your provider, this menu feature lets you read your unread text messages.

Old Text

If you have text message service from your provider, this menu feature lets you read your old text messages.

Delete All

This function lets you delete all text messages, both old and new, at once.

VoiceMsgs1

If you have voice mail service from your provider, this menu feature lets you access your home system access number.

VoiceMsgs2

If you have voice mail service from your provider, this menu feature lets you access your non-home system access number.

System Options Menu

The **SYSTEM OPT** Menu contains the following choices for selecting system preferences. (Selections available are dependent on your provider.)

Sys Select

This feature allows you to manually select a system from which to obtain service, instead of having the terminal automatically select an available system. This can include your public home system as well as Private System Identifiers (PSIDs) that have been programmed into your terminal. This function is particularly useful if you have access to more than one system. Only systems that are currently available can be selected. This varies depending on your geographic location. Once a system is selected, the terminal remains locked onto that system until:

- Signal strength no longer permits.
- The terminal is turned Off.
- You select Normal in this menu.

Home Only

The availability of the **Home Only** Menu item is dependent on your provider's phone setup. Home Only lets you have your terminal look only for your home system when you turn on the terminal. The terminal does not search for other systems if your home system is not available.

Note! This menu item is dependent upon your service provider and may not appear.

Phone No.

The **Phone No.** function shows you the phone number programmed into your terminal. You are prompted for the security code to gain access to this function.

SystemInfo

This feature displays the available digital channel services. If no services are available, the information fields are blank. If the terminal is locked in analog mode, or if the information cannot be obtained, the message `System Info Not Available` is shown. **YES** indicates feature capability; **NO** means the feature is not available.

Privacy

If your service provider offers digital voice encryption, use this function to request voice privacy service.

Voice Privacy service is not available in all areas. If voice privacy is active, the digital voice privacy indicator text, a reverse text P, is shown in the display.

If voice privacy is requested but not granted, your terminal sounds a Voice Privacy Not Active Tone. The tone sounds at the beginning of the call, and then every 30 seconds during the call, as a reminder. You can turn the tone feature off through the **Sounds** Menu.

Time/Date

This function lets you retrieve the time and date from the system, if available from the service provider.

General Setup Menu

The **GEN. SETUP** Menu lets you customize your terminal to suit your personal preferences.

KeypadLock

You can lock the keypad so that pressing keys has no effect. This feature is useful in circumstances when the keys may be accidentally pressed such as when you are carrying your terminal in a briefcase or purse. You can also activate the keypad lock by pressing ↘ and then *.

Note! Emergency (911) calls cannot be placed while the keypad is locked. Unlock the keypad to place a 911 call.

The keypad remains locked until you do one of the following:

- Replace the battery.
- Turn the terminal Off by pressing and holding **NO**, and then turn the terminal back On by again pressing and holding **NO** or **YES**.
- Press ↘, then *.

You will be unable to make calls when your terminal is in:

- **Radio Mode and you press the YES key.**
- **Phone Mode and you press the PTT button.**

Back Light

You can set the display and keypad backlighting to stay on continuously or automatically turn off when the terminal is in Standby Mode or when there has been no key pressed for 20 seconds.

Contrast

You can change the terminal display contrast setting. The contrast settings range from 1 to 5, with 5 being the highest contrast level.

Greeting

Each time the terminal is turned on, you can have the terminal display a welcome greeting that you enter yourself. The alphanumeric keypad displays both letters and numbers.

You can enter up to a three-line, 36-character message (12 characters per line). The message displays when you turn on the terminal. The greeting function is automatically turned off if no characters are entered.

Language

You can choose between four different languages (English, French, Spanish, and Portuguese) for text shown in the display. The languages vary between markets. You are prompted for the security code to gain access to this function.

Accessing Your Native Language

- Press ↘ 4 5 to access the Languages submenu.
- Enter your security code at the prompt (default is **0000**).
- Use ↘ or ↖ to scroll through the list of available languages until the cursor (⊧) is next to the appropriate language.
- Press **YES** to store your selection.
- Press **CLR** to exit Menu Mode.

Menu Reset

Menu Reset allows you to quickly return your terminal to its factory settings for Sound and Setup functions. You are prompted for the security code to gain access to this function. Press **YES** to return the terminal to its factory settings.

Note!   Remember that the security code also changes back to the original factory setting (**0000**). This will also erase your phonebook.

Noise Canc (Handsfree Only)

Noise Canc allows you to mute noise when you are connected to an accessory that supports this function. The two options for Noise Canc are On and Off.

Echo Canc (Handsfree Only)

Echo Canc allows you to mute the echo noise when you are connected to an accessory that supports this func-

tion. It is also required for Speakerphone Mode. The two options for Echo Canc are Auto and Off.

Training (Handsfree Only)

Training assists you in determining the DSP parameters when you are connected to a smart handsfree device. When you are prompted with Install?, choose either **YES** or **NO**.

Call Setup Menu

The **CALL SETUP** Menu contains the following choices for enhancing the use of your terminal.

Super Dial

Turning on **Super Dial** allows you to dial a number stored in memory locations one through nine by pressing and holding the numeric key corresponding to the memory location while in Phone Mode.

Speed Dial

Turning on **Speed Dial** allows you to dial a number stored in a memory location by entering the one or two-digit location number and pressing **YES** while in Phone Mode or **PTT** while in Radio Mode.

Answer Opt

The **Answer Opt** function lets you select how to answer calls. You can set your terminal to let you press **YES** to

answer, any key to answer, or automatically answer after two rings.

Call Timer

Call Timer, when turned on, shows the approximate duration of the current call. The timer shows minutes and seconds, and resets after 99 minutes.

MinuteMind

MinuteMind, when turned on, times your calls by sounding a short beep in the terminal speaker or hands-free loudspeaker about 10 seconds before each full minute during a call.

Auto Area

You can store an area code which **Auto Area** automatically adds to the seven-digit number you dialed. Enter the area code on the display, then select **On** to activate the feature.

Note! Auto Area does not add the area code to numbers shown in the display by Caller ID.

AutoPrefix

You can store a 1- to 12-digit prefix which the **AutoPrefix** function automatically adds to a dialed number. When you dial a 4- or 5-digit phone number, the prefix is automatically added to the number. To send a number to office extensions, store the 3-digit prefix in the **AutoPrefix** function. You need only to dial the last four or five digits of the number.

Menu Descriptions

For example, if you save 123 as the auto prefix and the function is turned on, to call 123-7654 just dial 7654. The prefix 123 is automatically added. The auto prefix is not added for numbers longer than five digits or to numbers that start with *.

Auto Retry

When enabled, the **Auto Retry** function repeats a call attempt every fifteen seconds for up to three minutes if the call cannot be delivered through the system.

Tone Send

When enabled, the **Tone Send** function allows your terminal to send DTMF tones during a call. This allows operations like electronic banking and other DTMF tone operated activities. When Tone Send is turned Off, your terminal *does not* send DTMF tones.

AccessTone

When enabled, **AccessTone** sounds three short beeps to indicate your outgoing call has connected to the system.

Sounds Menu

The **SOUNDS** Menu contains the following choices for setting the different volumes and sounds for ringing, keypad, speaker, and handsfree kits.

SilentMode

When **SilentMode** is enabled, your terminal does not make any keypad or ringing sounds in Phone Mode. You can quickly activate **SilentMode** by pressing ↘, then #. Press ↘, then # again to disable **SilentMode**. The "S" icon is shown in the display if Silent Mode is selected while the phone is in Radio Mode or Phone Mode.

Msg Tone

This feature allows you to turn on or off the tone that sounds when an incoming text message is received or a message waiting signal is received.

Key Sound

Key Sound allows you to choose the sound made when you press keys: a click, a continuous tone, a quick tone burst, or no sound at all in Phone Mode.

Key Volume

Key Volume allows you to select the volume level of the sounds made when you press keys in Phone Mode.

Ear Volume

Ear Volume allows you to adjust the volume of the speaker using the menu setting. You can also adjust the volume during a call by pressing ↖ or ↘, or by using the side volume keys in Phone Mode.

Speaker Volume

SpeakerVol allows you to select the speaker volume of handsfree accessories.

Ring Pulse

Ring Pulse allows you to choose the type of tone for the ring pulse in Phone Mode. Each tone is demonstrated as you scroll through the selections. There is also a System Set selection, which is controlled by the system.

Ring Pitch

Ring Pitch allows you to adjust the ring pitch from Low, Medium, High, or Mixed, and demonstrates those tones as you scroll through the selections in Phone Mode. There is also a System Set selection, which is controlled by the system.

Ring Volume

Ring Volume allows you to set the level of the ring volume from Extra Low, Low, Medium, High, Escalating, or Off in Phone Mode. The Escalating volume setting rises in steps from the lowest to the highest level as the terminal continues to ring.

Alert

Alert allows you to set the sound, vibrator, or both for incoming call notification.

Call Data Menu

The CALL DATA Menu contains the following choices for providing information on calls that have been made from or received by the terminal.

ReceiveLog

If you have Caller ID from your service provider, this menu lists the last 40 calls received with caller ID (the latest call appears first). Press YES to dial a number shown in the display.

Note! The Auto Area feature does not insert the area code in a phone number shown in the display by ReceiveLog.

Use the arrow keys to scroll through the list of received calls. If the received number is stored in memory with a name, the name is also shown in the display.

Last Time

The Last Time function indicates the approximate duration of the last call, in minutes and seconds.

Elapsed

The Elapsed time meter shows the hours and minutes that have been used. The elapsed time cannot be reset. Press NO to exit.

Call Count

The Call Count function indicates the total number of calls made from the current phone number shown in the

display. Press ⬎ to display the home count. Press ⬉ to return to the total count display. To reset from Standby Mode, press ⬎ 74⬎ ⬎, and then press **YES** to reset.

Time Count

The **Time Count** function shows the approximate total time that the terminal has been in use. Press ⬎ to display the home count. Press ⬉ to return to the total count display. To reset from Standby Mode, press ⬎ 75⬎ ⬎, and then press **YES** to reset.

Locks Menu

The **LOCKS** Menu contains the following choices for enabling protection services in the terminal to limit its use. You can select the lock options most useful for your desired level of terminal security. You must enter your security code before you can open the **LOCKS** Menu.

Auto Lock

When selected, the terminal is automatically locked from making calls each time you turn the terminal On. To unlock the terminal, enter the security code.

Dialing

You can use this option to restrict outgoing calls. Selections for this function include:

- **Allow all**
  No outgoing call restrictions.

- **Restrict all**
  Allows dialing of emergency numbers only.

- **Local + 800 # only**
  Only numbers with up to 7 digits and 10-11 digit 800, 888, or 877 numbers. No operator access.

- **Memory only**
  Allows calls only to numbers stored in memory. Numbers cannot be stored in memory while this restriction is enabled.

- **Local + 800 # + mem only**
  Only the combination of the two preceding options can be dialed.

- **Restrict Internat.**
  Only 11 digits or fewer can be dialed, and operator access is restricted.

- **Restrict 900 #**
  No calls allowed with the area codes 900, 0-900, or 1-900. No operator access.

- **Restrict Operator**
  Allows all calls except for operator access (dialing 0).

Call Cards

You can Allow or Restrict the use of calls using a calling card or calling card features.

Receiving

You can allow or restrict incoming phone calls. If selected, the terminal does not ring during incoming calls.

Sec. Code

You can change your four-digit security code. The factory-set code is 0000. You are prompted to repeat the code for verification.

Call Cards Menu

The **CALL CARDS** Menu contains the following choices for storing two calling card numbers to use for making long distance phone calls in Phone Mode.

Note! You must enter your security code before you can open the **CALL CARDS** Menu.

Card Select

You can store two calling card numbers. You select which number your terminal uses through the **CALL CARDS** Menu.

1 Press ↘ to enter Menu Mode.

2 Press ↖ or ↘ until the menu pointer is beside Call Cards.

3 Press **YES** to open the **CALL CARDS** Menu.

4 Press ↖ or ↘ until the menu pointer is beside CardSelect.

5 Press **YES**.

6 Press ↖ or ↘ until the card you want to use (Card One or Card Two) is enclosed in brackets.

7 Press **YES** to store your selection.

Card1 and Card2 Setup

Calling Card Setup

Make sure you have the following:

- Calling Card Access Number (a number provided by your long distance service provider).

- Verification Number (a number you must enter to allow the calling card call to be completed).

To set up a calling card, complete the following steps.

1 Press ↘ to enter Menu Mode.

2 Press ↖ or ↘ until the menu pointer is beside Call Cards.

3 Press **YES** to open the **CALL CARDS** Menu. You are prompted to enter your security code.

4 Press ↖ or ↘ until the menu pointer is beside Card1Setup or Card2Setup.

5 Press **YES** to enter card setup.

6   Press ↖ or ↘ until the menu pointer is beside
    `Access No.`

7   Press **YES**.

8   Enter the calling card access number.

9   Press **YES** to store the number.

10 Press ↘ to move to `Ver. no.`.

11 Enter the verification number.

12 Press **YES** to store the number.

Changing the Flow Order

If your long distance service provider requires a different dialing, you may need to change the `Flow Order.` Flow order determines when the numbers are transmitted by your terminal. The default flow is:

- Access number
- Stop
- Number you are calling
- Stop
- Verification number

To change the flow order:

1   From the previous Step 12, press ↘ until the menu pointer is beside `Flow dom.` (domestic) or `Flow int.` (international).

2   Press **YES**.

3   Press ↘ to scroll through the flow order.

4   To change a flow setting, press ↘ until the menu pointer is beside the setting you want to change.

5   Press **1** to scroll through the options for that setting.

6   When you have the flow order you want, press **YES** to store the selection.

Using a Calling Card

To place a call using a calling card:

1   Enter or recall the number you want to call.

2   Press and hold **YES**. The calling card number is shown in the display.

3   Release the key after the number has been displayed.

4   If you are using stops between numbers, you must press **YES** or any number key to send the next sequence of numbers. If you use pauses, the numbers are sent automatically after the specified length of time chosen in the Flow function.

Terminal Menu

The **TERMINAL** Menu contains the following sub-menus for enhancing the use of your terminal for **Radio Setup**, **Group Setup**, and **Alert Setup**.

Radio Setup

Radio Setup contains the following choices for adjusting the volume levels and answer options while you are in Radio Mode.

Key Volume

Key Volume allows you to adjust the volume of the key tones. Key Volume is adjustable in five different levels to take full advantage of the speaker high level in Radio Mode.

Ring Volume

Ring Volume allows you to set the volume of audible alert when a call is received. The options for Ring Volume are High, Escalating, Medium, Low, and Off.

Note! Off results in no audible alert.

Answer Option

Answer Opt. allows you to set one of three values for individual calls (non-Group). The options for Answer Opt are Radio Auto, Radio Yes, and Radio Any.

Group Setup

Group Setup contains the following choices for establishing, editing, and using Groups.

Store Group

Use Store Group to store Group phone numbers with accompanying names.

Recall Group

RCL Group lets you recall a Group by the name stored with the number or by the memory location number.

Default Group

Default Group allows you to list the default Group call number.

Alert Setup

ALERT Setup contains the following choices for establishing, editing, and using Alert groups.

Store Alert

Store Alert allows you to store an Alert phone number and an accompanying name.

RCL Alert
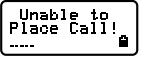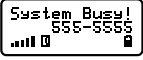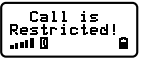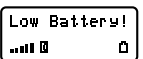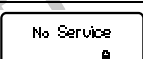
RCL Alert lets you recall an Alert phone number by the name stored with the number or by the memory location number.

Default Alt.

Default Alt. allows you to list the default Alert call number.

Problems You Can Solve

Displayed Messages and Explanations

Unable to Place Call!	The signal is too weak to make a call. Try again when the signal strength is one bar or stronger.
System Busy! 555-5555	The system is busy with other calls. Wait a while and try your call again.
Call is Restricted!	You called a number for which you have set call restrictions. See the **LOCKS** Menu for changing call restrictions.
Wrong security code!	You entered an incorrect security code. Enter the correct security code.
Low Battery!	The battery power is low. When the terminal shuts itself off, replace the battery with a fully charged one, or use an alternate power source, such as a travel charger.
Msg Mem Full No Msgs Can Be Received!	Your text message memory is full. Erase some stored messages so you can receive more messages.
No Service	Your terminal is searching for a wireless system.
_ _ _ _ _	Your terminal is searching for a wireless system.

Problems and Possible Solutions

The terminal does not turn On.	Recharge or replace the battery. If you are using a vehicle power adapter, make sure that the adapter is fully inserted into the vehicle cigarette lighter and that the vehicle is supplying power to the cigarette lighter.
The terminal is not ringing when a call is received.	Check the **Sounds** Menu to make sure the terminal is not set for Silent Mode or check the Alert menu to make sure the terminal is not set for vibrate only.
The terminal becomes warm during long calls.	This is not a problem. The terminal may feel slightly warm during extended calls.

Calls are being dropped.	You are probably in a geographic area with minimal service. Wait until the signal strength indicator in your terminal's display shows a relatively high signal strength (more bars) before trying to make a call. Make note of geographic locations where calls are dropped and contact your service provider.
The signal strength varies.	This is a common occurrence. Transmitter sites are set in geographic areas, and coverage is not 100% all of the time. Signal strength varies as you travel between cells.

If You Need Assistance

If you need additional information or if you would like to purchase Ericsson Original Accessories:

- In North America, call 1-800-ERICSSON (374-2776).
- In Latin America, call +1 305-755-6789.
- Elsewhere, call +1 919-472-7908.

Index

The R250d Menu

You can quickly access all the menus by pressing ⬊. The menus are organized in a circle. Quickly access menus and settings by using the numbers that appear next to each menu and setting. For example, access the **Ring Pitch** submenu by pressing ⬊ and then entering **6**, then **8**.

9   Call Cards
0 ▶ Terminal
Main Menus

1 Radio Setup
2 Group Setup
3 Alert Setup

```
Network
9▓▓      3▓▓
▄▄▄▄▄ 0 Phone ▓
```

8   Locks
9 ▶Call Cards
0   Terminal

1 CardSelect+
2 Card1Setup+
3 Card2Setup+

Main Menus
1 ▶Memory
2   Messages

1 Store Mem.
2 RCL Mem.
3 StoreScrpd
4 RCL ScrPad
5 RCL LastNo
6 Memory Used

7   Call Data
8 ▶Locks
9   Call Cards

1 Auto Lock+
2 Dialing+
3 Call Cards+
4 Receiviing+
5 Sec. Code+

1   Memory
2 ▶Messages
3   System Opt

1 UnreadText
2 Old Text
3 Delete All
4 VoiceMsgs1
5 VoiceMsgs2

6   Sounds
7 ▶Call Data
8   Locks

1 ReceiveLog
2 Last Time
3 Elapsed
4 Call Count
5 Time Count

2   Messages
3 ▶System Opt
4   Gen. Setup

1 Sys Select
2 Home Only*
3 Phone No.+
4 SystemInfo.
5 Privacy
6 Time/Date

5   Call Setup
6 ▶Sounds
7   Call Data

1 SilentMode   6 SpeakerVol
2 Msg Tone   7 Ring Pulse
3 Key Sound   8 Ring Pitch
4 Key Volume   9 RingVolume
5 Ear Volume   0 Alert

3   System Opt
4 ▶Gen. Setup
5   Call Setup

4   Gen. Setup
5 ▶Call Setup
6   Sounds

1 KeypadLock
2 Back Light
3 Contrast
4 Greeting
5 Language+
6 MenuReset+
7 Noise Canc (Handsfree Only)
8 Echo Canc (Handsfree Only)
9 Training (Handsfree Only)

1 Super Dial   6 Auto Area
2 Speed Dial   7 AutoPrefix
3 Answer Opt.   8 Auto Retry
4 Call Timer   9 Tone Send
5 MinuteMind   0 AccessTone

+ Options that require you to enter a security code.

* This menu item is dependent upon your service provider and may not appear.

R250d PRO Quick Reference Card

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Turn Phone ON/OFF	Press and hold **NO**
Enter Menu Mode	Press ↘
	During a call, press and hold ↘

Calling

Answer a Call	Press **YES**
End a Call	Press **NO**
Recall Last Dialed No.	↖↖ or upper side key **NO** to exit
Recall a No. from Memory	↖ or upper side key (enter name or ↘↘ to scroll list)
Speed Dial No. from Memory	Enter memory location No. and press **YES**
	(Activate Speed Dial: ↘ 5 2 [On])
Super Dial No. from Memory	Press and hold memory location No.
	(Activate Super Dial: ↘ 5 1 [On])
Store Displayed No. in Scratch Pad	↘ 1 3
Recall No. from Scratch Pad	↘ 1 4

Indicators

Call Timer	↘ 5 4 [On] or [Off]
Minute Minder	↘ 5 5 [On] or [Off]
Access Tone	↘ 5 0 [On] or [Off]

Display

Contrast	↘ 4 3
Back Light	↘ 4 2
Language	↘ 4 5 (requires security code, default code is 0000)

Sounds

Mute Microphone On	Press and hold **CLR**
Mute Microphone Off	Press and hold **CLR**
Mute Ringer	Press a side key or **NO**
Ring Pulse	↘ 6 7
Ring Pitch	↘ 6 8
Ring Volume	↘ 6 9
Silent Mode On/Off	↘ #
Earpiece Volume	↘ 6 5
(during a call)	Press upper side key to increase or lower side key to decrease
Speaker Volume	↘ 6 6
Message Tone	↘ 6 2

AE/LZT 123 5170 R2

R250d PRO Quick Reference Card

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Dialing Codes

Pause Dialing ▪	Press and hold *
Stop Dialing ▪	Press and hold #

Message Services

Quick Access to Voice Mail and Text Messages	Press and hold ↖ ↖ to switch between voice mail and text message displays Press **YES** to call

Security

Lock Keypad	↘ *
Unlock Keypad	↘ *
Locks Settings	↘ 8

Using a Calling Card

1. Enter or recall the No. being called
2. Press and hold **YES** until your calling card number appears in the display
3. If you are using stops (▪) between numbers, press **YES** to send the next sequence of numbers

Calling Card (requires a security code)

Select Calling Card

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http://mobile.ericsson.com